DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-026244
Date Inspected: 07-Sep-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1730
Location: Job Site

CWI Name: John Pagliero and Steve Mc Connell

CWI Present:	☑ Yes	☐ No					
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☐ No	☑ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: SAS Tower

Summary of Items Observed:

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At Tower Base Elevation Electro Slag Welding (ESW) T-joint N-041 location ‘N’ (outside), QA randomly ABF welder Jeremy Dolman continuing to perform 3G SMAW cover welding repair due to excessive grinding. The welder was observed welding in the 3G (vertical) position utilizing Shielded Metal Arc Welding (SMAW) with 1/8” diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1000-Repair Rev. 2. The repairs at various locations were having a depth range of 3mm to 6mm. The excavations were previously tested using Magnetic Particle Testing (MT) by ABF QC Steve Mc Connell and verified by this QA with positive result. The repair excavations and the adjacent base metal were preheated to more than 300°F using the propylene gas torch. During the shift, ABF QC John Pagliero was noted monitoring the welder. Measured welding parameter during welding was 110 amperes on a 1/8” diameter E7018H4R electrode. During the shift, repair welding was completed and the welder has moved to another ESW location ‘W’ inside.

At Tower Base Elevation Electro Slag Welding (ESW) T-joint W-041 location ‘W’ (inside), QA randomly ABF welder Jeremy Dolman continuing to perform 3G SMAW cover welding repair due to excessive grinding. The welder was observed welding in the 3G (vertical) position utilizing Shielded Metal Arc Welding (SMAW) with 1/8” diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1000-Repair Rev. 2. The repairs at various locations were having a depth range of 3mm to 6mm. The excavations were previously tested using Magnetic Particle Testing (MT) by ABF QC Steve Mc Connell and verified by this QA with positive result.

The repair excavations and the adjacent base metal were preheated to more than 300°F using the propylene gas torch. During the shift, ABF QC John Pagliero was noted monitoring the welder. Measured welding parameter during welding was 110 amperes on a 1/8" diameter E7018H4R electrode. At the end of the shift, repair welding was still continuing and should remain tomorrow.

At Tower Base Elevation Electro Slag Welding (ESW) T-joint E-041 location 'R' (inside), QA randomly ABF welder Rory Hogan perform 3G SMAW cover welding repair due to excessive grinding. The welder was observed welding in the 3G (vertical) position utilizing Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1000-Repair Rev. 2. The repairs at various locations were having a depth range of 3mm to 6mm. The excavations were previously tested using Magnetic Particle Testing (MT) by ABF QC Steve Mc Connell and verified by this QA with positive result. The repair excavations and the adjacent base metal were preheated to more than 300°F using the propylene gas torch. During the shift, ABF QC John Pagliero was noted monitoring the welder. Measured welding parameter during welding was 130 amperes on a 1/8" diameter E7018H4R electrode. At the end of the shift, repair welding was still continuing and should remain tomorrow.

Other welding related activities noted during the shift include the following;
1. ESW locations 'N' and 'W' (outside) – smooth grinding of the cut and gouged radius of the sump block removal were still continuing.
2. ESW locations 'C' and 'B' (inside south diaphragm) – grinding still continues after ABF QC VT/MT on the ESW weld cover.

At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT of the ESW welding of four (4) various locations. The QA verification was performed to verify that the welding and the VT inspection performed by the QC inspector meet the requirements of the contract documents. At the conclusion of the QA verification it appeared that the weld and the QC inspection complied with the contract documents.

ESW Location Remarks
1. N-041 location 'N' (outside) Deemed acceptable except one outstanding UT repair at Y=9350mm.
2. W-041 location 'W' (outside) Deemed acceptable.
3. E-041 location 'R' (outside) Partial VT from Y=6000mm to the top. Two (2) UT repairs still pending at Y=600mm (ESW Restart location) and Y=1435mm.
4. S-041 location 'S' (outside) Partial VT from Y=6000mm to the top. One (1) VT/UT repair still pending at Y=4140mm.

WELDING INSPECTION REPORT

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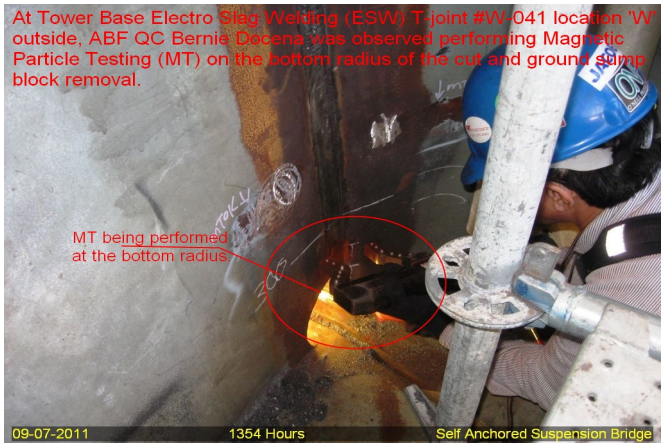

Summary of Conversations:

No significant conversation ocurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo,Joselito	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer